

Simplifying Complex Fractions

Simplify each complex fraction.

1)
$$\frac{\frac{x}{25}}{\frac{4}{x^2}}$$

2)
$$\frac{\frac{4}{u^2}}{\frac{4}{u}}$$

3)
$$\frac{\frac{y^2}{4}}{\frac{y}{x+4}}$$

4)
$$\frac{\frac{n-4}{m^2}}{\frac{m}{n-4}}$$

5)
$$\frac{\frac{x-5}{2x-5}}{\frac{x-5}{2x-5} - \frac{x+2}{x-5}}$$

6)
$$\frac{x-1}{\frac{x-1}{9} + \frac{9}{x-1}}$$

7)
$$\frac{\frac{a^2}{b+3} + \frac{2}{a}}{a^2}$$

8)
$$\frac{\frac{u^2}{2v}}{\frac{v^2}{u^2} + \frac{v}{2}}$$

9)
$$\frac{\frac{x^2}{9} - \frac{25}{4}}{\frac{4}{x} - \frac{x}{5}}$$

10)
$$\frac{\frac{4}{3x} + \frac{2}{x^2}}{\frac{x}{x+1} - \frac{4}{x+1}}$$

Answers to Simplifying Complex Fractions

$$1) \frac{x^3}{100}$$

$$5) \frac{x^2 - 10x + 25}{-x^2 - 9x + 35}$$

$$9) \frac{20x^3 - 1125x}{720 - 36x^2}$$

$$2) \frac{1}{u}$$

$$6) \frac{9x^2 - 18x + 9}{x^2 - 2x + 82}$$

$$10) \frac{4x^2 + 10x + 6}{3x^3 - 12x^2}$$

$$3) \frac{yx + 4y}{4}$$

$$7) \frac{a^3 + 2b + 6}{a^3b + 3a^3}$$

$$4) \frac{n^2 - 8n + 16}{m^3}$$

$$8) \frac{u^4}{2v^3 + v^2u^2}$$